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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,529	06/26/2003	Francesco A. Campisano	END920030021US1	4833

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EXAMINER

ZHAO, DAQUAN

ART UNIT	PAPER NUMBER
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2621

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/607,529	Applicant(s) CAMPISANO ET AL.	
	Examiner Daquan Zhao	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/26/2003</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 14 and 18-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu et al (US 6,473,558 B1).

For claim 14, Wu et al teach an MPEG-2 buffer scheme for providing enhanced trick mode playback of a video stream, comprising:

a first buffer having a first pointer that is associated with a first address (e.g. column 9, line 46- column 10, line 57, also see column 7, line 53- column 8, line 28, Figure 6, F is considered to be the first pointer, and frame memory M1 and M3 together in frame buffer memory 230 of figure 2 is considered to be the first buffer, the address of M1 and M3 together in buffer memory 230 is consider to be the first address).

a second buffer having a second pointer that is associated with a second address (e.g. B is considered to be the second pointer, M2 and M4 together is consider to be the second buffer in buffer memory 230), wherein the first pointer is locked to the first buffer and the second pointer is locked to the second buffer (Pointer F is locked to M1 and M3 for frames I_0^2 and P_0^2 and pointer B is locked to M2 and M4 for frames

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P_3^2 and P_9^2), and wherein a set of frames of the video stream comprising at least one I frame and at least zero P frames is decoded to the first buffer and the second buffer in an alternating fashion based on a continuous swapping of the first address and the second address (e.g. pointers F and B are alternating for the first four frames I_0^2 and P_6^2 , P_3^2 and P_9^2).

For claim 20, Wu et al teach the set of frames are part of a group of pictures with a set of B frames (e.g. see column 5, lines 46-60 for GOPs and column 4, lines 1-5 for I P and B frames).

For claim 18, Wu et al teach the display pointer is synchronized with the first address, and wherein the decoded set of frames is read out of the first buffer and the second buffer in the alternating fashion based on the display pointer (e.g. pointers F and B are for displaying the frames).

For claim 19, Wu et al teach the first buffer is a current buffer and the second buffer is a past buffer (e.g. buffers M1 and M2 are alternating).

For claim 21, Wu et al teach a third buffer, wherein the set of frames are decoded to the first buffer, the second buffer and the third buffer in the alternating fashion based on a continuous swapping of the first address, the second address and a third address (e.g. buffer M5 is consider to be the third buffer).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 6, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al (US 6,473,558 B1) as applied to claims 14 and 18-21 above, and further in view of Kim (US 6,466,733 B1).

See the teaching of Wu et al above.

For claims 1, 2, 15 and 16 Wu et al fail to teach disengagement of a frame synchronization signal. Kim teaches disengagement of a frame synchronization signal (e.g. column 8, lines 59- column 9, line 13, sync bites are separated from the trick play data). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Kim into the teaching of Wu et al to increase the stability of a system since Kim suggests to extract the sync block to simplify the error correction process when decoding a signal in a trick play mode (Kim, column 8, line 59-column 9, line 13).

For claim 4, Wu et al teach the first buffer is a current buffer and the second buffer is a past buffer (e.g. buffers M1 and M2 are alternating).

For claim 6, Wu et al teach the set of frames are part of a group of pictures with a set of B frames (e.g. see column 5, lines 46-60 for GOPs and column 4, lines 1-5 for I P and B frames).

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3. Claims 3, 7, 8 and 9, 10, 11, 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al (US 6,473,558 B1) as applied to claims 1, 2, 4, 6, 14, 15, 16 and 18-21 above, and further in view of Kim (US 6,466,733 B1).

See the teaching of Wu et al above

For claims 8 and 9 Wu et al fail to teach disengagement of a frame synchronization signal. Kim teaches disengagement of a frame synchronization signal (e.g. column 8, lines 59- column 9, line 13, sync bites are separated from the trick play data). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Kim into the teaching of Wu et al to increase the stability of a system since Kim suggests to extract the sync block to simplify the error correction process when decoding a signal in a trick play mode (Kim, column 8, line 59-column 9, line 13). However, Wu et al and Kim fail to teach the system disclosed can be integrated into the MPEG-2 decoder. The examiner takes official notice for the MPEG2 decoder since it is well known in the art. It would have been obvious for one ordinary skill in the art at the time the invention was made to integrate the system disclosed by Wu et al and Kim to minimize the size of the device. It has been held that making previously separated components integral into one unit without producing any new and unexpected result involves only routine skill in the art. See *In re Larson*, 340 F.2d 965, 968; 144 USPQ 347, 349 (CCPA 1965).

For claim 3, Wu et al teach synchronizing a display pointer with the first address and reading the decoded set of frames out of the first buffer and second buffer in the alternating fashion based on the display pointer (e.g. figure 6, frames are display in a

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sequence using the pointers F and B alternatively). However, Wu et al and Kim fail to teach the system disclosed can be integrated into the MPEG-2 decoder. The examiner takes official notice for the MPEG2 decoder since it is well known in the art. It would have been obvious for one ordinary skill in the art at the time the invention was made to integrate the system disclosed by Wu et al and Kim to minimize the size of the device. It has been held that making previously separated components integral into one unit without producing any new and unexpected result involves only routine skill in the art. See *In re Larson*, 340 F.2d 965, 968; 144 USPQ 347, 349 (CCPA 1965).

Claims 7 and 10 is rejected for the same reasons as discussed in claim 3 above.

For claim 11, Wu et al teach the first buffer is a current buffer and the second buffer is a past buffer (e.g. buffers M1 and M2 are alternating).

For claim 12, Wu et al teach the set of frames are part of a group of pictures with a set of B frames (e.g. see column 5, lines 46-60 for GOPs and column 4, lines 1-5 for I P and B frames).

For claim 13, Wu et al teach a third buffer, wherein the set of frames are decoded to the first buffer, the second buffer and the third buffer in the alternating fashion based on a continuous swapping of the first address, the second address and a third address (e.g. buffer M5 is consider to be the third buffer).

4. Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al (US 6,473,558) and Kim (US 6,466,733) as applied to claims 1-4, 6-16, 18-21 above.

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For claim 5 and 17, Wu et al and Kim fail to disclose the Microcode. The examiner takes official notice for the Microcode since it is well known in the art. It would have been obvious for one ordinary skill in the art at the time the invention was made to have use the microcode in the system of Wu et al and Kim to reduce the amount of hardware for cost efficient purpose.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Seki et al (US 7,062,149 B2); Suzuki et al (US 5,602,956); Zhou (US 6,353,700 B1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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